

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

IN RE PACIFIC FERTILITY CENTER
LITIGATION

Case No. 18-cv-01586-JSC

**ORDER RE: PLAINTIFFS' MOTION
TO EXCLUDE EXPERT OPINION
TESTIMONY**

Dkt. No. 632

Plaintiffs bring product liability and failure to recall claims against Chart Industries following a March 2018 incident involving a Chart-manufactured cryopreservation tank which was storing Plaintiffs' eggs and embryos. In connection with summary judgment and in preparation for trial, the parties each filed motions to exclude the other's expert testimony in whole or in part under the Federal Rules of Evidence and *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993).¹ (Dkt. Nos. 629, 631, 632.)² This Order addresses Plaintiffs' motion to exclude portions of the testimony of five of Chart's experts. (Dkt. No. 632.) Having considered the parties' briefing regarding these motions and having had the benefit of oral argument on March 4, 2021, Plaintiffs' motion is GRANTED IN PART and DENIED IN PART as set forth

¹ All parties have consented to the jurisdiction of a magistrate judge pursuant to 28 U.S.C. § 636(c). (Dkt. No. 553.)

² Record Citations are to material in the Electronic Case File ("ECF"); pinpoint citations are to the ECF-generated page numbers at the top of the document.

below.

BACKGROUND

Plaintiffs in this action all obtained fertility services from Pacific Fertility Center (PFC)³, and in particular, as relevant here, cryopreservation of their eggs and embryos. On March 4, 2018, PFC's laboratory director, Dr. Joseph Conaghan, discovered that Tank 4 which contained 2,500 embryos and 1,500 eggs—including Plaintiffs' eggs and embryos—had lost liquid nitrogen. As a result of this incident, Plaintiffs filed the underlying action against Chart alleging manufacturing and design defects, as well as failure to recall.⁴

Plaintiffs contend that Tank 4 had a design and/or manufacturing defect because it was designed to/should have a full-penetration weld to fuse the Tank's liquid nitrogen fill tube to the Tank's inner vessel; instead, it had a partial penetration weld which foreseeably developed a crack on the inside of the tank allowing liquid nitrogen to seep from Tank 4's inner vessel into its vacuum-insulation layer. When this occurred, the liquid nitrogen was warmed by the surrounding laboratory air, transitioned from a liquid to a gas, and expanded thereby putting pressure on the Tank's inner vessel and causing it to implode. Plaintiffs also theorize that PFC had a Chart-manufactured TEC 3000 electronic controller which malfunctioned two weeks prior to the incident and was thus no longer being used by PFC at the time of the incident. Plaintiffs contend that a functioning controller would have alerted PFC staff to the Tank's loss of liquid nitrogen and thus allowed staff to move the Tank's contents to another tank and avoid damage. Plaintiffs maintain that Chart is negligent for failing to recall or retrofit the controller because Chart was aware of ongoing issues with the TEC 3000 and other Chart-manufactured controllers.

Chart, for its part, contends that the March 4 incident was caused entirely by PFC's negligence including PFC's decision to unplug the TEC 3000 controller on February 15, 2018 and manually monitor the liquid nitrogen level in Tank 4. Chart maintains that PFC failed to reliably

³ The Court uses PFC throughout this Order to refer to Pacific Fertility Center and all its associated entities and medical professionals, including Prelude Fertility, Inc., and Pacific MSO, LLC.

⁴ The PFC entities were also named as defendants but the claims as to them have been compelled to arbitration.

and accurately do so and as a result the liquid nitrogen was not maintained at a level which adequately controlled the temperature in Tank 4 resulting in the Tank 4 implosion.

Over 130 individual actions alleging these same claims against Chart have been consolidated with the Plaintiffs' claims here. The initial five Plaintiffs' claims are scheduled for jury trial May 3, 2021.

LEGAL STANDARD

Under Rule 702 of the Federal Rules of Evidence, a witness may offer expert testimony if the following requirements are met:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. These criteria can be distilled to two overarching considerations: "reliability and relevance." *Ellis v. Costco Wholesale Corp.*, 657 F.3d 970, 982 (9th Cir. 2011). The inquiry does not, however, "require a court to admit or exclude evidence based on its persuasiveness." *Id.*

Scientific evidence is reliable "if the principles and methodology used by an expert are grounded in the methods of science." *Clausen v. M/V New Carissa*, 339 F.3d 1049, 1056 (9th Cir. 2003). The court's focus "must be solely on principles and methodology, not on the conclusions that they generate." *See Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 595 (1993). The court's "task ... is to analyze not what the experts say, but what basis they have for saying it." *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 43 F.3d 1311, 1316 (9th Cir. 1995) (hereinafter *Daubert II*).

In deciding whether to permit an expert to testify, courts face the difficult task of "determin[ing] whether the analysis undergirding the experts' testimony falls within the range of accepted standards governing how scientists conduct their research and reach their conclusions." *Daubert II*, 43 F.3d at 1317. Among the factors courts consider in making this determination are:

(1) whether the expert’s theory or method is generally accepted in the scientific community; (2) whether the expert’s methodology can be or has been tested; (3) the known or potential error rate of the technique; and (4) whether the method has been subjected to peer review and publication. *Id.* at 1316 (citing *Daubert*, 509 U.S. at 593-94). Consideration should also be given to whether the expert’s testimony springs from research independent of the litigation. *Id.* at 1317. If not, the expert should point to other indicia of reliability, such as peer-reviewed studies or a reputable source showing that the expert “followed the scientific method, as it is practiced by (at least) a recognized minority of scientists in their field.” *Id.* at 1317-19. “These factors are illustrative, and they are not all applicable in each case.” *Wendell v. GlaxoSmithKline LLC*, 858 F.3d 1227, 1233 (9th Cir. 2017). The inquiry is “flexible,” *Daubert*, 509 U.S. at 594, and “Rule 702 should be applied with a ‘liberal thrust’ favoring admission,” *Messick*, 747 F.3d at 1196 (quoting *Daubert*, 509 U.S. at 588).

DISCUSSION

Plaintiffs move to exclude portions of the testimony of five of Chart’s experts: Eldon Leaphart, John Cauthen, Dr. Grace Centola, Dr. Franklin Miller, and Dr. Angela Lawson.

A. Mr. Leaphart

Mr. Leaphart is an electrical engineer who has “developed particular expertise in the areas of functional safety design and the management processes for systems engineering requirements” over the last ten years. (Dkt. No. 630-5, Leaphart Report at 5.) He was retained by Chart to “investigate and analyze the Chart MVE - 808 cryogenic freezer TEC 3000 control system” involved in the March 4 incident, and in particular, “the control design, failsafe design, and performance of the TEC 3000 freezer controller as they relate to allegations raised in this matter.” (*Id.* at 2.)

Plaintiffs do not object to Mr. Leaphart testifying regarding his examination of the TEC 3000 controller and its functionality. However, Plaintiffs move to exclude two categories of his testimony which they argue fall outside his field of expertise. First, Plaintiffs object to any testimony from Mr. Leaphart suggesting that PFC had knowledge of the impending Tank 4 failure. In particular, Plaintiffs seek to exclude his opinion that “[t]he changes in LN2 usage levels

1 preceding the incident of February 15, 2018 served as an early indication of pending issues with
2 Tank 4.” (Dkt. No. 630-5 at 37.) Plaintiffs note that Mr. Leaphart has never worked with a
3 cryogenic storage tank and testified that he does not have an “opinion on anything with the tank.”
4 (Dkt. No. 630-6, Leaphart Depo. at 141:6.) Given this, Plaintiffs insist that he has no special
5 knowledge or expertise that would allow him to opine as to how Tank 4 lost liquid nitrogen or that
6 the controller’s alert regarding changes in the liquid nitrogen level forecast future issues with the
7 Tank itself.

8 Chart responds that Mr. Leaphart identified the data he downloaded from the controller
9 which showed there was an increase in the liquid nitrogen usage rate on February 15, 2018, but
10 that response does not address whether Mr. Leaphart had a basis to opine as to the *effect* that liquid
11 nitrogen usage rate would have on the Tank itself or what it would have indicated to PFC.
12 Likewise, Chart’s argument that Mr. Leaphart’s opinion is supported by the controller operating
13 manual which indicated that “the rate of usage can be used to indicate certain anomalies that may
14 be impending” does little to clarify what the impending anomalies might be. (Dkt. No. 669-16,
15 Leaphart Depo. at 116:17-19.) Mr. Leaphart may testify regarding the controller, how it works,
16 and what the manual states, but he is not qualified to testify as to what the controller’s information
17 meant with respect to an impending issue with the Tank. And as for Mr. Leaphart’s opinion that
18 the controller’s outputs put PFC on notice, that’s an argument that Chart can make, or that an
19 expert on cryogenic tanks can testify to, but it is not within Mr. Leaphart’s expertise.

20 Second, Plaintiffs seek to preclude Mr. Leaphart from testifying that Tank 4’s controller
21 was safe in design and manufacture and did not cause Plaintiffs’ loss of eggs and embryos.
22 Plaintiffs contend that he is unqualified to render such an opinion because he was not asked to
23 determine whether Chart’s electronic controllers suffer from a systemic defect and he did not
24 perform a root cause analysis to determine why Tank 4’s controller stopped working. Plaintiffs
25 identify internal Chart documents showing that the TEC-3000 controller suffers from a defect
26 causing it to go haywire. (Dkt. No. 630-4 at 12.) Chart counters that Mr. Leaphart is qualified to
27 testify as to whether the controller was unreasonably dangerous in light of the failsafe design of
28 the controller; that is, Mr. Leaphart’s opinion is that because of the failsafe design even if the

1 controller lost certain functionality, the controller would still function as expected.

2 As with Chart's arguments regarding Dr. Kasbeker's opinions, Plaintiffs' arguments go to
3 the weight to be given Mr. Leaphart's opinion as to the safety of the controller rather than their
4 admissibility. *Primiano*, 598 F.3d at 565. Plaintiffs are free to question Mr. Leaphart on cross-
5 examination regarding his failure to conduct root cause testing and failure to determine whether
6 the controller suffered from a systemic defect. However, Mr. Leaphart is not qualified to opine as
7 to causation: he may not testify that the controller's condition did not cause the loss of tissue or
8 Plaintiffs' damages.

9 Accordingly, Plaintiffs' motion to exclude Mr. Leaphart's testimony is granted in part and
10 denied in part.

11 **B. Dr. Angela Lawson**

12 Dr. Angela Lawson is a psychologist who works in reproductive medicine and serves as a
13 forensic consultant and expert. (Dkt. No. 630-14, Lawson Report at 2.) She was retained by
14 Chart as a rebuttal witness to Plaintiffs' expert Dr. Grill. Plaintiffs seek to preclude Dr. Lawson
15 from offering any testimony concerning malingering or symptom exaggeration. At oral argument,
16 Chart clarified that it does not intend to have Dr. Lawson testify that Plaintiffs are malingering.
17 As the Court noted at oral argument, neither Dr. Grill nor Dr. Lawson determined whether any
18 Plaintiff was or was not malingering; thus, neither expert shall opine on that subject.

19 **C. John Cauthen**

20 John Cauthen is a former special agent with the Federal Bureau of Investigation who now
21 works as a digital forensic examiner for TEC Inquiries. (Dkt. No. 630-7, Cauthen Report at 4.)
22 Chart hired Mr. Cauthen to obtain data from the Tank 4 controller (the MVE TEC 3000 controller
23 device) and analyze the data in the "Reflections" application PFC used to digitally record its daily
24 lab measurements. (*Id.* at 5.)

25 Plaintiffs do not object to Mr. Cauthen testifying about the data he recovered from the
26 Tank 4 electronic controller or limited testimony regarding the Reflections database, but they
27 object to any testimony that entries in the Reflections database were altered after the Tank 4
28 incident. Plaintiffs contend that this evidence should be excluded because it presents an unfair

1 risk of prejudice and risks extending the proceedings on collateral issues, and thus should be
2 excluded under Rules 403 and 404. Plaintiffs agree to stipulate to the measurements that Mr.
3 Cauthen has verified were entered contemporaneously, but they object to testimony regarding
4 changes that PFC made to these entries after the fact. Chart insists that the prejudice analysis does
5 not apply to non-parties and that Mr. Cauthen's opinions "go to the accuracy of measurements and
6 set the stage for other experts to opine on standard of care for making false, back dated entries in a
7 medical record and/or who caused any damage to the plaintiffs' samples." (Dkt. No. 668 at 15:2-
8 4.)

9 Mr. Cauthen's forensic examination of the Reflections database found that on March 19,
10 2018—two weeks after the incident—a PFC employee made four changes to previously entered
11 data regarding Tank 4. (Dkt. No. 630-7 at § C.6.) These included changing the data from
12 February 8, 15, and 28. For the February 15 and 28 entries, the staff member changed the liquid
13 nitrogen fill data from blank (i.e., no data) to 10.2 for February 15, and from blank (i.e., no data)
14 to 12.2 for February 28. (*Id.*) Plaintiffs do not dispute the accuracy of Mr. Cauthen's findings;
15 instead, they maintain that because they agree to stipulate to the fact that the Reflections database
16 showed no fill data on February 15 and 28, there is no need for him to testify that these entries
17 were later changed.

18 The problem with Plaintiffs' argument is that it ignores Chart's theory: that PFC's
19 negligence caused Plaintiffs' injuries. In particular, Chart contends that PFC failed to accurately
20 and reliably monitor the level of liquid nitrogen in Tank 4 after Dr. Conaghan unplugged the
21 controller. Plaintiffs do not dispute that because he unplugged the controller it was no longer
22 capturing data about the liquid nitrogen level in the tank. Thus, the only record of the liquid
23 nitrogen level in the tank is PFC's manual recording of data in the Reflections database. That PFC
24 changed some of the data during the relevant time period is a fact that the jury will have to weigh
25 in accessing PFC's credibility with respect to other acts it says it did or did not take during this
26 time period.

27 The Court recognizes that this evidence has an inflammatory quality to it, but that evidence
28 is potentially damaging is not itself a basis to exclude it. Under Federal Rule of Evidence 403, the

test is whether it is more prejudicial than probative. *See United States v. Williams*, 445 F.3d 724, 730 (4th Cir. 2006) (“It is worth remembering that the touchstone for excluding evidence under Rule 403 is not prejudice, but ‘unfair’ prejudice” (internal quotation marks omitted)); 1 *Federal Rules of Evidence Manual* § 403.02 (12 ed. 2020) (“Evidence is not ‘prejudicial’ merely because it is harmful to the adversary. After all, if it didn’t harm the adversary, it wouldn’t be relevant in the first place”). Here, given Chart’s defense, the Court cannot conclude that its prejudicial value outweighs its probative value. Further, there are multiple exceptions to Rule 404(b)’s bad acts exclusionary rule including that the evidence is relevant to proving “knowledge, opportunity, intent, absence of mistake, or lack of accident,” all of which could apply. Fed. R. Evid. 403(b)(2). Plaintiffs, however, will be allowed to introduce evidence to support their theory regarding why the entries were back-dated.

Accordingly, Plaintiffs’ motion to exclude Mr. Cauthen’s testimony is denied.

D. Dr. Grace Centola

Dr. Grace Centola is a board-certified High Complexity Clinical Laboratory Director. (Dkt. No. 630-9, Centola Report at 2.) Chart retained Dr. Centola to opine as to whether PFC met the standard of care for an embryology lab in February and March 2018, and if not, whether that failure caused damage to any of the eggs and embryos stored in Tank 4. (*Id.* at 5.)

Plaintiffs do not object to Dr. Centola’s opinion that “PFC’s decision to unplug Tank 4’s electronic controller, its failure to immediately service or repair the controller, and its method of manually monitoring Tank 4’s liquid nitrogen levels after the controller malfunctioned were all violations of the applicable standard of care.” (Dkt. No. 630-4 at 16:27-17:2.) However, Plaintiffs object to Dr. Centola testifying regarding other ways in which PFC may have behaved negligently. In particular, as with Mr. Cauthen, Plaintiffs object to testimony that PFC backdated certain entries in the Reflections database as well as Dr. Centola’s opinion that the backdating shows “[a] pattern of inaccurate and/or untruthful statements from the PFC lab” and a “dishonest practice” which violates the standard of care (Dkt. No. 630-9, Centola Report at ¶ 38; *see also* ¶ 42.) Dr. Centola also testified to evidence that after the incident, PFC added information to a couple of February entries indicating the Tank was low on liquid nitrogen. Plaintiffs insist that the

1 testimony is improper under Rule 404. Chart responds that this evidence is not offered as
2 character evidence but “as evidence of the accuracy of liquid nitrogen measurements produced by
3 Pacific MSO.” (Dkt. No. 668 at 16:26-27.)

4 Dr. Centola may opine as to whether PFC violated the standard of care by retroactively
5 inputting liquid nitrogen measurements and comments into Reflections and as to why it would
6 violate the standard of care. She may also testify as to whether that data indicated a liquid
7 nitrogen supply issue that under the standard of care should have been investigated. Plaintiffs’
8 reliance on *Jones v. S. Pac. R.R.*, 962 F.2d 447, 449 (5th Cir. 1992) is unpersuasive. There the
9 court held that the defendant’s “prior safety infractions had little to do with what actually
10 happened on the day of the wreck.” Here, in contrast, Chart’s argument is that these deviations
11 from the standard of care are a part of what caused the Tank failure. And the after-the fact input
12 of the measurements supports an inference of PFC’s knowledge of its potential role in the
13 accident. *See* Fed. R. Evid. 404(b).

14 But Dr. Centola’s opinion that PFC had a pattern of untruthful statements and a dishonest
15 practice is character evidence that is not helpful to the jury and beyond her expertise. She can
16 testify as to what she understands the facts to be (the back dating, not keeping paper logs of the
17 measurements, from memory later imputing the measurements into the system) and whether and
18 why those acts violate the standard of care. But she may not opine, for example, that Dr. Conahan
19 was dishonest by not disclosing the backdating during his initial deposition. That is an argument
20 Chart can make and an inference the jury may draw, but it is not something about which Dr.
21 Centola may opine.

22 Plaintiffs also object to Dr. Centola’s opinion that the Tank 4 logs “indicate a history of
23 neglect of the samples and a deviation from the required daily monitoring of the liquid nitrogen
24 levels in Tank 4 to ensure the sufficient protection of stored samples.” (*Id.* at ¶ 43.) For this
25 opinion, Dr. Centola identifies low liquid nitrogen level readings from Tank 4 in 2013 and 2014.
26 Relatedly, Plaintiffs seek to exclude Dr. Centola’s opinion that the 2013/2014 low liquid nitrogen
27 level readings reflect ongoing problems with PFC’s supply tanks. (*Id.* at ¶ 36.) The inferential
28 leap Chart makes from the 2013/2014 readings to the cause of the 2018 accident is too attenuated

1 to be probative. Dr. Centola's opinions regarding the 2013/2014 levels are excluded.

2 Finally, Plaintiffs object to any testimony that PFC employees used buckets to refill its
3 tanks with liquid nitrogen on occasion. (*Id.* at ¶¶ 27-29.) While Plaintiffs do not dispute that this
4 may have happened on occasion, they note that Dr. Centola does not believe that this practice
5 caused the March 4 incident, and as such, it falls within the category of inadmissible bad acts
6 evidence. (Dkt. No. 630-10, Centola Depo. at 230:6-8.) Chart apparently intends to use this
7 evidence to show that PFC personnel were lying about filling Tank 4 on February 21 and February
8 24 when the controller shows no data. But Plaintiffs maintain that PFC witnesses have
9 consistently testified that they *did not* fill Tank 4 on those days. (Dkt. No. 689 at 10:25-26.)
10 Accordingly, unless and until the PFC witnesses testify that they did or may have filled Tank 4 on
11 those dates with buckets, Dr. Centola's opinion on the use of buckets is excluded as not relevant.

12 Accordingly, Plaintiffs' motion to exclude portions of Dr. Centola's testimony is granted
13 in part and denied in part.

14 **E. Dr. Franklin Miller**

15 Dr. Miller is an Associate Professor in the Mechanical Engineering Department of the
16 University of Wisconsin – Madison, as well as a member of the American Society of Mechanical
17 Engineering (ASME) and the Cryogenic Society of America (CSA). (Dkt. No. 630-11, Miller
18 Report at 2.) Dr. Miller opines that Tank 4 was not defective or unreasonably dangerous and that
19 PFC employees caused the loss of liquid nitrogen in the tank through their "careless acts with
20 respect to operation, procedure, and maintenance of the [tank]." (*Id.* at 3.)

21 Plaintiffs move to exclude Dr. Miller's opinion (1) that PFC spoliated evidence or
22 prevented him from detecting a small leak in Tank 4, (2) that Tank 4 was out of warranty, (3) that
23 Tank 4 did not possess any design or manufacturing defects, (4) that an experienced welder would
24 interpret Chart's design drawings to require seal welds, (5) his vacuum failure test and results, (6)
25 his opinion that Tank 4's liquid nitrogen levels dropped to low levels in 2013 and 2014, and (7)
26 his supplemental report dated December 11, 2020.

27 First, spoliation is a legal issue and as Plaintiffs note, not the proper subject of expert
28 testimony. To the extent that Dr. Miller seeks to testify regarding the testing that Chart and other

1 entities did on Tank 4 after the incident, he may do so. And he may opine as to why he believes
 2 Chart and the other experts were unable to locate a leak. But he may not testify or imply that PFC
 3 or any other party did anything wrong by spraying the Tank with powder or any of the other Tank
 4 testing that was done.

5 Second, Plaintiffs move to exclude Dr. Miller's opinion that Tank 4 was out of warranty at
 6 the time of the incident. (Dkt. No. 630-11, Miller Report at 25, ¶ 6 ("Vacuum-insulated cryogenic
 7 tanks lose vacuum seal over time. The subject MVE 808AFGB was out of warranty at the time of
 8 the incident.")). While Dr. Miller's testimony that Tank 4 was out of warranty is true and therefore
 9 reliable, Chart does not persuasively explain how it is relevant. *See Ellis v. Costco Wholesale*
 10 *Corp.*, 657 F.3d 970, 982 (9th Cir. 2011). Dr. Miller's testimony referenced by Chart in its
 11 opposition does not tie the warranty status to an issue in the case: there is no dispute as to which
 12 party should have paid for some defect. In contrast to the lack of relevance, such testimony is
 13 likely to confuse the jury given the lack of relevance of the warranty status. Therefore, the motion
 14 to exclude Dr. Miller's testimony about the warranty is granted.

15 Third, Plaintiffs move to exclude Dr. Miller's opinion that Tank 4 "does not possess any
 16 design or manufacturing defects" and "[n]o design or manufacturing defects existed in its
 17 condition and functionality that resulted in the loss of any tissue" as potentially confusing to the
 18 jury because Dr. Miller's understanding of design and manufacturing defects differs from how
 19 those terms are defined under California law. Dr. Miller is not permitted to testify to a legal
 20 conclusion underlying the ultimate issue, i.e., that the Tank did or did not suffer from a
 21 manufacturing or design defect. *See Hangarter v. Provident Life & Accident Ins. Co.*, 373 F.3d
 22 998, 1016 (9th Cir. 2004) ("an expert witness cannot give an opinion as to her legal conclusion,
 23 i.e., an opinion on an ultimate issue of law. Similarly, instructing the jury as to the applicable law
 24 is the distinct and exclusive province of the court.") (internal citations and quotation marks
 25 omitted). The Court will instruct the jury on the law and experts cannot testify to the legal
 26 conclusions to be drawn (or not drawn) from the evidence. *Id.* Dr. Miller can, of course, testify as
 27 to whether in his opinion the Tank was designed properly and whether manufactured according to
 28 its specification.

Fourth, Plaintiffs move to exclude Dr. Miller’s opinion that the Tank “design drawing contains a symbol apparently indicating a full penetration weld. However, any experienced welder will interpret the drawing to require seal welds because there are no indications for any other type of weld on the drawing” because Dr. Miller is not a welding expert and he has no basis to conclude how welders would interpret design defects. (Dkt. No. 630-11, Miller Report at 8 (footnotes omitted).) Plaintiffs contend that the only apparent basis for Dr. Miller’s testimony is the testimony of Buster Ingram, one of Chart’s welders. (*Id.* at fn.19.) In response, Chart touts Dr. Miller’s vast experience with cryogenic vessels. Regardless of his vast experience, Dr. Miller can only opine as to matters about which he has “knowledge, skill, experience, training, or education.” Fed. R. Evid. 702. Thus, to testify regarding how an experienced welder would interpret design drawings, he must lay a foundation that he has sufficient personal knowledge of the matter. His report and deposition testimony do not lay that foundation. Alternatively, as Plaintiffs suggest, Chart may call the welder on whose testimony Dr. Miller based his opinion. The opinion as to how a welder would interpret the symbol is excluded unless and until Chart demonstrates that Dr. Miller possesses the required expertise.

Fifth, Plaintiffs move to exclude evidence of the test Dr. Miller conducted to disprove Plaintiffs’ theory that a cracked weld on the inside of Tank 4 caused it to lose all of its liquid nitrogen overnight and gradually implode. Plaintiffs insist that his test is unreliable and did not replicate Tank 4’s conditions at the time of the incident because (1) Dr. Miller’s test tank was empty rather than filled with IVF equipment and thus contained too little liquid nitrogen, (2) he simulated an exterior crack rather than an interior crack, and (3) he did not verify that his results were reproducible.

As to the first argument, Chart parries that Plaintiffs’ expert Dr. Kasbekar did not fill a tank with tissue and test his hypothesis. (Dkt. No. 668 at 25.) But this response misses the point. As Chart argues in its opposition, the purpose of the test was to show that 14 inches of liquid nitrogen could not have evaporated from Tank 4 in less than 24 hours. (Dkt. No. 668 at 24.) But the amount of liquid nitrogen it takes to fill the tank to the 14 inches line depends on the volume of tissue and equipment in the tank: the more tissue and equipment the less volume. On March 3,

2018 Tank 4 had 80 boxes, 1280 cryo-canes, 128-goblets, and 3000-4000 cryotips or cryolocks. The tank Dr. Miller tested was empty. Dr. Miller made no effort to quantify the difference in volume despite acknowledging that there would have been less liquid nitrogen in Tank 4 than in his test. (Dkt. No. 630-12, Miller Depo at 110-11.) Instead, he testified that the difference in volume did not matter for the purposes of his test because the “rate of boiloff would be the same [regardless of volume] because the surface area that’s exposed on the outside of a tank is the same.” (*Id.* at 112.) He did not, however, put anything in his report to explain why that would be the case; nor did he explain any further in his deposition testimony.

In addition to performing his test on an empty tank, Dr. Miller did not attempt to simulate how the tank would function if there were an interior weld crack as Plaintiffs’ posit; instead, Dr. Miller tested what would happen if liquid nitrogen was allowed to leak into the tank’s vacuum insulation layer outside the tank. (Dkt. No. 630-11, Miller Report at 36.) Chart does not even address this difference, let alone identify testimony that would make the distinction immaterial to the relevance of the test result to what happened to Tank 4.

Finally, Plaintiffs highlight Dr. Miller’s failure to conduct repeated testing to ensure that the results are reliable and to assign a rate of error. Chart argues that *Daubert* does not require repeat testing. True, *Daubert* does not explicitly require repeat testing, but it does state that “in the case of a particular scientific technique, the court ordinarily should consider the known or potential rate of error.” *Daubert*, 509 U.S. at 594. Dr. Miller’s “use of a single test prevents him from calculating averages or error rates.” *Rovid v. Graco Children's Prod. Inc.*, No. 17-CV-01506-PJH, 2018 WL 5906075, at *5 (N.D. Cal. Nov. 9, 2018) (“Without multiple tests, [the expert] cannot show that his results are reproducible or reliable.”).

Daubert and Rule 702 require expert testimony to be both reliable and “relevant to the task at hand.” *Daubert*, 509 U.S. at 591, 597. The relevancy inquiry requires that the expert’s testimony “fit” the facts of the case. *Id.* at 591. “Expert testimony which does not relate to any issue in the case is not relevant and, ergo, non-helpful.” *Id.* Dr. Miller’s failure to simulate the conditions of Tank 4—either with respect to the volume of liquid nitrogen in the tank or the source of leak—undermines the usefulness of his test. *See Rovid*, 2018 WL 5906075 at *8 (excluding

expert testimony in part based on relevancy where the expert’s “testing did not even attempt to simulate” the underlying incident); *see also Daubert*, 509 U.S. at 592–93 (the threshold question is “whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue.”). While any one of the issues with the test (the higher volume of liquid nitrogen, the outside leak, the lack of repeated testing) might not doom the test’s admissibility, these omissions taken together make the test results not reliable enough to be shared with the jury. Chart’s reliance on *Higley v. Cessna Aircraft Co.*, No. CV 10-3345 JCG, 2013 WL 12112167, at *3 (C.D. Cal. July 8, 2013), is misplaced as there the court found that “the test experiment is sufficiently similar to those conditions experienced during the accident.” Here, the test is *not* sufficiently similar and reliable. Accordingly, Dr. Miller is precluded from testifying regarding the results of his test under both the relevance and reliability prongs of the *Daubert* analysis.

Sixth, Plaintiffs move to exclude any testimony regarding the 2013/2014 low liquid nitrogen level results that Dr. Centola seeks to testify about. The Court excludes this testimony for the same reason Dr. Centola’s testimony on this issue was excluded.

Finally, Plaintiffs move to strike Dr. Miller’s second rebuttal report as untimely and for improperly seeking to introduce evidence of three new tests. The Court rejects the timeliness argument for the same reason that it rejected the argument when Chart made it with respect to Dr. Kasbekar. Even if untimely, there is no prejudice. The same cannot be said, however, with respect to new opinions in Dr. Miller’s report. While it is appropriate for Dr. Miller to rebut Dr. Kasbekar’s finite element analysis (given the Court’s denial of Chart’s motion to exclude this analysis), Chart has offered no such explanation for why Dr. Miller should be allowed to provide a second rebuttal to buttress his original opinions. (Dkt. No. 630-13, 2nd Miller Rebuttal Report at 6-8.) Chart’s reliance on Federal Rule of Civil Procedure 26(e) is misplaced. Rule 26(e)(1)(B) allows an expert to correct “incomplete or incorrect” information. It does not allow a party to continue to file supplemental expert reports so that it can have the last word. *See Rovid*, 2018 WL 5906075, at *11 (collecting cases striking supplemental reports attempting “to strengthen or deepen opinions ‘in light of [the expert’s] opponent’s challenges to the analysis and conclusions

1 therein.”) (quoting *Luke v. Family Care & Urgent Med. Clinics*, 323 F. App’x 496, 499–500 (9th
2 Cir. 2009)). Accordingly, Dr. Miller’s second supplemental report is struck except with respect
3 to his response to Dr. Kasbekar’s finite element analysis.

4 Plaintiffs’ motion to exclude Dr. Miller’s opinion is granted in part, denied in part, and
5 deferred in part.

6 CONCLUSION

7 For the reasons stated above, the Plaintiffs’ motion to exclude portions of the testimony of
8 five of Chart’s experts: Eldon Leaphart, John Cauthen, Dr. Grace Centola, Dr. Franklin Miller,
9 and Dr. Angela Lawson is GRANTED IN PART and DENIED IN PART.

10 This Order disposes of Docket No. 632.

12 IT IS SO ORDERED.

13 Dated: March 16, 2021

14
15 
16 JACQUELINE SCOTT CORLEY
17 United States Magistrate Judge
18
19
20
21
22
23
24
25
26
27
28